

OIB - C-130H Hercules #439 04/11/15 Science Report

Aircraft:

[C-130H Hercules #439](#) ([See full schedule](#))

Date:

Saturday, April 11, 2015

Mission:

OIB

Mission Location:

Kangerlussuaq, Greenland

Mission Summary:

Mission: East Glaciers 01 (priority: low)

This mission maps the centerlines of several glaciers on the central east coast of Greenland. We fly the centerlines of six glaciers: DeGeer, Jaette, Nordenskiold, Wahlenberg, Violin and Nord Glaciers. The first two were originally flown during the 2009 OIB campaign, and all were flown in 2012. The Violin centerline passes within 1 km of two PROMICE sites. We transit to the area along a line connecting the DYE2 and GRIP drill sites, and return along a historical ATM line dating to 1993.

The weather across southern Greenland deteriorated again today, with the entire southwest coast of the island affected by a weather front moving in from the Davis Strait. The southeast coast had widespread fog in the south, and clouds at higher levels toward the north. The high terrain in those northern areas, combined with the clouds, precluded our flying a mission there today. Thus this low-priority mission was the only suitable flight for today's weather situation. We experienced some clouds near Kangerlussuaq but clear and calm conditions across the ice sheet and in the main target areas in the east. There we enjoyed an almost literal immersion in the majestic scenery of Greenland's central east coast, flying up and down numerous, and tremendous, glacial canyons and fjords.

All sensors operated normally today, with no major problems with the exception of the snow radar. This radar had a data system issue for roughly the first half of the mission which prevented data collection during that time, but which was repaired in time to successfully collect data for the second half. In addition, we continued to see some minor radio-frequency interference with ATM3 (wide scanner), but the severity of the interference was noticeably less than previously observed, perhaps due to our rerouting of some suspect cables prior to takeoff.

We flew a ramp pass, for instrument calibration purposes, at 1000' AGL.

Data volumes:

ATM: 25 Gb

CAMBOT: 79 Gb

DMS: 120 Gb

Ku-Band Radar: 202 Gb

MCoRDS: 2.1 Tb

Narrow Swath ATM: 32 Gb

NSERC Onboard Data: TBD

Snow Radar: 122 Gb

total data collection time: 7.1 hrs

Images:

Map of East Glaciers 01



[Read more](#)

Fjord wall in east Greenland



[Read more](#)

Nord Glacier calving front



[Read more](#)

Submitted by:

John Sonntag on 04/12/15

Related Flight Report:

C-130H Hercules #439 04/11/15

Flight Number:

East Glaciers 01

Payload Configuration:

OIB

Nav Data Collected:

No

Total Flight Time:

8 hours

Submitted by:

Luci Crittenden on 04/11/15

Flight Segments:

From:	BGSF	To:	BGSF
Start:	04/11/15 10:30 Z	Finish:	04/11/15 18:30 Z
Flight Time:	8 hours		
Log Number:	151002	PI:	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	OIB C-130 completed the East Glaciers 01 mission today out of Kangerlussuaq. Aircraft and science instruments performed well. Tomorrow is a hard down day for crew rest. Next flight scheduled for Monday, April 13.		

Images:

NASA C-130 on Approach to Kangerlussuaq - 11 April 2015



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Flight Hour Summary:

	151002
Flight Hours Approved in SOFRS	334.4
Total Used	297.6

Total Remaining

36.8

151002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
03/12/15	ATF	Check	1.5	1.5	332.9
03/13/15	PTF - GPS	Check	2	3.5	330.9
03/13/15	PTF - Radar #1	Check	0.8	4.3	330.1
03/13/15 - 03/14/15	PTF - Radar #2	Check	4.5	8.8	325.6
03/16/15	PTF - Radar #3	Check	2.4	11.2	323.2
03/17/15	Transit	Transit	7.8	19	315.4
03/19/15	Nansen Gap	Science	7.4	26.4	308
03/24/15	Sea Ice - Zigzag East	Science	8.2	34.6	299.8
03/25/15	Sea Ice North Pole Transect ? Thule	Science	8.2	42.8	291.6
03/26/15	Sea Ice - Laxon Line	Science	9.2	52	282.4
03/27/15 - 03/28/15	Sea Ice - East Beaufort Sea	Science	8.2	60.2	274.2
03/29/15 - 03/30/15	Sea Ice - North Beaufort Loop	Science	8.9	69.1	265.3
03/30/15 - 03/31/15	Sea Ice - SIZRS Zigzag	Science	8.1	77.2	257.2
04/01/15	Sea Ice - South Basin Transect	Science	8.8	86	248.4
04/03/15	Sea Ice - South Canada Basin	Science	7.4	93.4	241
04/06/15	OIB Transit from BGTL-BGSF	Transit	3.3	96.7	237.7
04/08/15	Helheim-Kangerdlussuag	Science	8	104.7	229.7
04/09/15	K-EGIG Summit	Science	8.3	113	221.4
04/10/15	Southeast Glaciers 01	Science	8	121	213.4
04/11/15	East Glaciers 01	Science	8	129	205.4
04/13/15	Southeast Coastal	Science	7.7	136.7	197.7
04/14/15	Helheim-Kangerdlussuag Gap B	Science	7.9	144.6	189.8
04/17/15	Umanaq B	Science	7.5	152.1	182.3
04/18/15	Southwest Coast A	Science	8.1	160.2	174.2
04/20/15	Penny 01	Science	6.3	166.5	167.9
04/21/15	Thomas-Jakobshaven 01	Science	8.7	175.2	159.2
04/22/15	Southeast Flank 01	Science	7.6	182.8	151.6
04/23/15	Jakobshavn-Eqip-Store	Science	9.2	192	142.4
04/24/15	Geikie 02	Science	8.3	200.3	134.1
04/25/15	Jakobshaven 02/ Mop Up	Science	6.9	207.2	127.2
04/27/15	Southwest Coastal B	Science	8	215.2	119.2
04/28/15	Southeast Glaciers 02	Science	7	222.2	112.2
04/29/15	TRANSIT BGSF-BGTL	Transit	2.5	224.7	109.7
04/30/15	ATM Laser Repair Checkout	Science	2.3	227	107.4
05/01/15	NW Coastal A	Science	7.2	234.2	100.2
05/05/15	IceSat-2 North / CryoSat-2 SARIn	Science	8.2	242.4	92
05/06/15	North Glaciers 01	Science	8.2	250.6	83.8
05/07/15	Devon-Barnes 01	Science	7.8	258.4	76
05/08/15	Zigzag West	Science	7.2	265.6	68.8

05/11/15	Northwest Glaciers 01	Science	7.8	273.4	61
05/12/15	North-Central Gap 02	Science	8.1	281.5	52.9
05/15/15	North-Central Gap 01	Science	7.3	288.8	45.6
05/21/15	Transit - Thule to Bangor, ME	Transit	6.5	295.3	39.1
05/22/15	Transit - Bangor, ME to WFF	Transit	2.3	297.6	36.8

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

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